ATTACHMENT C
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) ~~Method~~ A method for cutting and removing an underwater ~~pipelines~~ pipeline, the method comprising the following steps:

a) determining the position of the underwater pipeline ~~(40)~~ to be removed;

b) positioning, on the ~~said line~~ pipeline, guiding means ~~(2)~~ for positioning cutting means ~~(4)~~ and recovery means ~~(3)~~ for recovering the cut pipe sections, said guiding means ~~(2)~~ being able to be repositioned along said ~~line (40)~~ pipeline and being stably connected to a boat ~~(10)~~ intended to collect ~~the~~ recovered sections of cut pipe;

c) guided positioning of the cutting means ~~(4)~~ and guided positioning of the recovery means ~~(3)~~;

d) cutting ~~of the~~ a pipe section of predetermined length;

e) ~~removal of said section by means of~~ removing the pipe section using said recovery means ~~(3)~~;

f) ~~transfer of~~ transferring the pipe section ~~recovered by said recovery means~~ to said boat ~~(10)~~;

g) repositioning ~~of~~ the guiding means ~~(2)~~ along ~~the~~ a remaining ~~line~~ pipeline portion to be removed and ~~repetition of the preceding~~ repeating steps c) to f) until the underwater pipeline ~~(40)~~ has been completely removed.

2. (Currently Amended) ~~Apparatus~~ An apparatus for implementing the method for cutting and removing underwater pipelines according to ~~Claim~~ claim 1, said apparatus comprising:

cutting means ~~(4)~~ for cutting said underwater pipelines ~~(40),~~;

recovery means ~~(3)~~ for recovering the cut sections ~~(41)~~ of ~~said lines (40),~~ the pipeline;

guiding means ~~(2)~~ for positioning said cutting means ~~(4)~~ and said recovery means ~~(3),~~;

suspension means ~~(1)~~ for suspending said guiding means ~~(2)~~, cutting means ~~(4)~~ and recovery means ~~(3),~~; and

transferring means ~~(5)~~ for transferring the recovered pipe sections ~~(41)~~ to the loading compartment of a boat ~~(10)~~, said transferring means being located on a suitable support comprising a plate ~~(6)~~ arranged on ~~the~~ a deck of said boat ~~(10)~~ opposite an opening ~~(12)~~ formed in ~~the~~ a stern wall ~~(11)~~ thereof.

3. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 2, ~~in which~~ wherein said suspension means ~~comprise~~ comprises a gantry ~~(1)~~ comprising two uprights ~~(201)~~ and a cross member ~~(101, 301)~~ to which ~~the~~ hoisting means ~~(501, 506, 701, 706)~~ for lowering and hoisting on-board said boat said guiding means ~~(2)~~, said cutting means ~~(4)~~ and said recovery means ~~(3)~~ are connected, said gantry being arranged on said support plate ~~(6)~~ along ~~the~~ an external edge directed towards said opening ~~(12)~~ formed in the stern wall ~~(11)~~.

4. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 3, ~~in which~~ wherein said uprights ~~(201)~~ of said gantry ~~(1)~~ are pivotably hinged ~~(221, 306)~~ with said support plate and provided with actuating means ~~(106)~~ which allow positioning of said gantry ~~(1)~~ in a substantially cantilever manner with respect to the stern wall ~~(11)~~ of said boat ~~(10)~~.

5. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 3, ~~in which~~ wherein said gantry ~~(1)~~, in ~~the~~ a vicinity of the cross member ~~(101)~~, has connected thereto, in cantilever fashion, by means of ~~the~~ arms ~~(311)~~, a beam ~~(301)~~ which is parallel to and has substantially the same length as the cross member ~~(101)~~.

6. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 5, ~~in which the~~ wherein deflection pulleys ~~(501, 701)~~ for ~~the~~ cables ~~(826, 726)~~ for suspension of the guiding means ~~(2)~~, recovery means ~~(3)~~ and cutting means ~~(4)~~ are arranged on the said cross member ~~(101)~~ and on the ~~said~~ beam ~~(301)~~.

7. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 2, ~~in which~~ wherein said guiding means ~~comprise~~ comprises a guide unit ~~(2)~~ comprising:

a support base ~~(302)~~ provided with gripping means ~~(402)~~ for gripping said underwater pipeline ~~(40)~~,

movement means ~~(502)~~ for moving said support base ~~(302)~~ along said ~~line (40)~~ pipeline, and

a head-piece ~~(202)~~ mounted on a shaft ~~(602)~~ rotating on said support base ~~(302)~~, said head-piece being provided thereon with deflecting means ~~(242)~~ for deflecting ~~the~~ a cable ~~(726)~~ for connection with said suspension means ~~(1)~~, a floating body ~~(222)~~ and detecting means ~~(102)~~ for detecting the position of said underwater ~~line (40)~~ pipeline.

8. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 7, ~~in which~~ wherein said detecting means ~~comprise~~ comprises at least one videocamera ~~(122)~~ and a sonar ~~(112)~~.

9. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 8, ~~in which~~ wherein said head-piece is ~~furthermore~~ provided thereon with a compass ~~(252)~~ arranged in the visual field of the videocamera ~~(122)~~.

10. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 7, ~~in which~~ wherein said shaft ~~(602)~~ is located on a carriage ~~(612)~~ movable in the direction of the length of said support base ~~(302)~~ so as to position said head-piece ~~(202)~~ at one of the two ends of said support base ~~(302)~~.

11. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 7, ~~in which~~ wherein said support base ~~(302)~~ is provided, along its perimetral edges, with a plurality of nozzles ~~(312)~~ oriented perpendicularly with respect to the plane of travel of the cable ~~(726)~~ for suspending said guide unit ~~(2)~~ and able to eject pressurised fluid supplied by suitable means ~~(322)~~.

12. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 7, ~~in which~~ wherein said gripping means ~~comprise~~ comprises jaws ~~(402)~~ provided with suitable actuating means ~~(702, 712)~~ arranged in said support base ~~(302)~~.

13. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 7, in which said movement means ~~comprise~~ comprises elements suitable for displacement such as wheels or belts ~~(502)~~ arranged along the sides of said support base ~~(302)~~ with a mutual inclination preferably of ~~90□~~ 90°.

14. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 2, ~~in which~~ wherein said recovery means ~~comprise~~ comprises a recovery unit ~~(3)~~ comprising gripping means ~~(103)~~ provided with a substantially rectangular box-shaped body ~~(113)~~, said box-shaped body ~~(113)~~ being connected to an upper frame ~~(603)~~ in which ~~the~~ deflecting means ~~(633)~~ for deflecting ~~the~~ a cable ~~(826)~~ connected to said suspension means by means of the tie-rods ~~(433, 513)~~ are arranged.

15. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 14, wherein said box-shaped body ~~(113) having~~ has arranged at one end, a beam ~~(503)~~ stably connected to said box-shaped body ~~(113)~~ at the ends of which two of the said tie-rods ~~(513)~~ are connected, and there being arranged longitudinally with respect to said box-shaped body ~~(113)~~, a guide ~~(303)~~ in which a slider ~~(413)~~ is movable, said slider being associated with a trapezium ~~(403)~~ perpendicular to said guide ~~(303)~~ at the ends of which two more of the said tie-rods ~~(433)~~ are connected.

16. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 14, ~~in which~~ wherein said upper frame is provided with two cantilever arms ~~(203)~~ arranged perpendicular to the plane of travel of the cable ~~(826)~~ for suspension of the recovery unit ~~(3)~~, provided with retraction means ~~(213, 223)~~ and provided at their free end ~~(253)~~ with means ~~(233, 243)~~ for engagement with said guide means ~~(2)~~, which are releasable.

17. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 2, ~~in which~~ wherein said cutting means ~~comprise~~ comprises a cutting unit ~~(4) preferably comprising an endlessly wound diamond-coated cable (804) deflected around a plurality of pulleys (704, 604, 504), at least one of which (504) is motor-driven and which are arranged so as to define a cutting plane perpendicular to the said underwater pipeline (40), said pulleys (704, 604, 504) being connected to a plate mounted slidably on at least one guide (204) and associated with actuating means (404, 414) for moving said plate (104) towards and away from said underwater line (40)~~.

18. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 17, ~~in which~~ wherein said cutting unit ~~(4)~~ is mounted integrally with said recovery unit ~~(3)~~.

19. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim~~ claim 2, ~~in which~~ wherein said transferring means for transferring the recovered pipe sections ~~(41) comprise~~ comprises a pipe-guiding arm ~~(5)~~ hinged with ~~the~~ an external edge of the support plate ~~(6)~~ directed towards the opening ~~(12)~~ in the stern wall ~~(11)~~ of the boat ~~(10)~~ and provided with actuating means ~~(405, 415)~~ for moving ~~it~~ the pipe-guiding arm from a position substantially perpendicular to the deck ~~(13)~~ of the boat ~~(10)~~ to a substantially parallel position and provided with means ~~(305)~~ for gripping the recovered pipe section ~~(41)~~ and means ~~(225)~~ for slidably guiding said section ~~(41)~~.

20. (New) The apparatus according to claim 17, wherein said cutting unit comprises:

an endlessly wound diamond-coated cable deflected around a plurality of pulleys, at least one of which is motor-driven and which are arranged so as to define a cutting plane perpendicular to the underwater pipeline, said pulleys being connected to a plate mounted slidably on at least one guide and associated with actuating means for moving said plate towards and away from said underwater line.